

Appl. No. : 09/511,934
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provided with a conveyer for loading and unloading the workpiece into and from the reaction chamber; and

a cleaning device for cleaning unwanted deposits adhering to the inside of the reaction chamber at predetermined intervals, said cleaning device comprising:

(i) a cleaning gas controller for introducing a cleaning gas into the reaction chamber and evacuating the reaction chamber after the cleaning treatment;

(ii) a cleaning gas activator for activating the cleaning gas in radical form; and

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(iii) a temperature and timing controller comprising a program including a cleaning sequence which is activated after completion of film formation, said cleaning sequence programmed to (1) introduce an inert gas to the reaction chamber to obtain a predetermined pressure, (2) reduce the temperature of the susceptor at a predetermined rate for cleaning, at the predetermined pressure, (3) when reaching a cleaning temperature of 470°C or lower which is lower than the film formation temperature, actuate the cleaning gas controller and the cleaning gas activator, and (4) evacuate the reaction chamber.

REMARKS

Claim 1 has been amended to clarify the invention by incorporating the limitations of Claim 3. Claims 2-3 have been canceled accordingly. Claims 11-20 have been canceled as being directed to a non-elected invention. No new matter has been added. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE." Applicants respectfully request entry of the amendments and consider the application in view of the amendments and the following remarks.

Rejection of Claims 1-10 Under 35 U.S.C. § 103

Claims 1-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Frankel in view of Kao. However, a combination of Frankel and Kao could not lead to the claims as amended herein as explained below.

In the Advisory Action, the Examiner asserts that Kao discloses the purpose of flowing inert gas both for removing loose particles as well as stabilizing the pressure (column 11, line 52). However, the introduction of inert gas for stabilizing the pressure is for film processing, not for cleaning. Kao in no way discloses the introduction of inert gas for stabilizing the pressure prior to